

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name
PO038631	MEC002-VU	1	1	Net 60	M7075T6S1.250X2.000	7075-T6 Sheet 1.250" X 2.000" : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft				48	1/8/2018	48		S030137	Stock	1/2/2018	\$ 20.12 / ft	6		\$965.76	Metaux Castle
		2			M7075T6S0.000X0.250	7075-T6S Sheet 6" Thick Plate X 0.25" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft				12		12		S030138	Stock	1/2/2018	\$ 20.75 / ft	6		\$249.00	Metaux Castle
		3			M7075T6S0.750X1.250	M7075T6S0.750X1.250 : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft						12		S030139	Stock	1/2/2018	\$ 16.45 / ft	6		\$197.40	Metaux Castle
		4			M7075T6S0.375X8.000	7075-T6S Sheet .375" Thick Plate X 6" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft				24		24		S030140	Stock	1/2/2018	\$ 25.68 / ft	6		\$616.32	Metaux Castle
		5			M7075T6S1.750X2.250	7075-T6 Sheet 1.750" X 2.250" : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft				48		48		S030141	Stock	1/2/2018	\$ 28.62 / ft	6		\$1,373.76	Metaux Castle
		6			M7075T6S4.000X3.000	7075-T6S Sheet 4.000" Thick X 3.000" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft				24		24		S029879	Stock	1/5/2018	\$ 82.35 / ft	3		\$1,976.40	Metaux Castle
		7			M7075T6S4.000X4.000	7075-T6 Sheet 4.000" X 4.000" cut to size: 32" LONG : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft				27		27		S029880	Stock	1/5/2018	\$ 94.50 / ft	3		\$2,520.32	Metaux Castle
<b>Total:</b>										<b>195</b>		<b>195</b>								<b>\$7,898.96</b>	



Castle Metals®

A. M. Castle & Co.

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Page 1 of 1

<b>Ship From:</b> A. M. Castle & Co. (Canada) Inc. Toronto 2150 Argentea Road MISSISSAUGA, ON L5N 2K7		<b>Solid To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		<b>Ship To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	<b>Deliver To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA
<b>Date Shipped</b> 02-JAN-2018	<b>F.O.B.</b> ORIGIN	<b>Freight Terms</b> Prepaid	<b>Carrier</b> LOCAL_FLEET	<b>BOL No</b> 2814999	<b>Delivery No</b> 121506248
<b>Shipment Details</b>					
<b>Final Destination Branch -</b>					
<b>Order No</b> 4986350	<b>Line No</b> 1	<b>Item No</b> 752114.MO	<b>Description</b> 1'2500.PL7075.T651.ALUMINUM US1.2.000.144.5000 CUT RECTANGLE TO 2 IN () X 144.5 IN () SPECIFICATIONS: AMS-QQ-A-250/42 ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@artaero.com		
<b>Purchase Order No</b> 38631	<b>Part Number</b>		<b>Ordered Qty</b> 4.00 PCS	<b>Invoice Qty</b> 4.00 PCS	
<b>Details</b> ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@artaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS					
<b>Mill/Source</b>	<b>Heat Number</b> 248607B4	<b>Mech ID</b>	<b>PCS</b> 4	<b>Width (IN)</b>	<b>Length (IN)</b>
					<b>Shipped Qty (LBS)</b> 149.5643
<b>8018-01-8</b>					
<small>We hereby certify the material covered by this certification conforms to the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle &amp; Co. within 60 days of the shipment. Material cut to the correct size or material cut by the customer cannot be returned for credit.</small>					
<small>Reviewed by Authorized Castle Metals Representative:</small>					
<div><div>DATE</div><div>01/08/18</div><div>NAME:</div><div></div></div>					



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Page 1 of 1

<b>Ship From:</b> A. M. Castle & Co. (Canada) Inc. Toronto 2150 Argentinia Road MISSISSAUGA, ON L5N 2K7		<b>Sold To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		<b>Ship To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		<b>Deliver To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA					
<b>Date Shipped</b> 02-JAN-2018		<b>F.O.B.</b> ORIGIN		<b>Freight Terms</b> Prepaid		<b>Carrier</b> LOCAL FLEET		<b>BOL No</b> 2814997		<b>Delivery No</b> 121506247	
<b>Shipment Details</b>											
<b>Final Destination Branch -</b>											
<b>Order No</b> 4986350		<b>Line No</b> 2		<b>Item No</b> 750488.MO		<b>Description</b> 1.7500.PL.7075.T651.ALUMINUM US1.2.250.144.5000 CUT RECTANGLE TO 2.25 IN ( ) X 144.5 IN ( ) SPECIFICATIONS: AMS-QQ-A-250-12 ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dataero.com					
<b>Purchase Order No</b> 38631		<b>Part Number</b>		<b>Ordered Qty</b> 4.00 PCS		<b>Invoice Qty</b> 4.00 PCS					
<b>Details</b>		ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dataero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS									
<b>Mill/Source</b>		<b>Heat Number</b> 704550B3		<b>Mech ID</b>		<b>PCS</b> 4		<b>Width (IN)</b>		<b>Length (IN)</b> 235.6436	
<b>We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to Castle Metals &amp; Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned.</b>											
<b>Reviewed by Authorized Castle Metals Representative:</b>											
<b>Date:</b> 01/08/18 <b>Name:</b> [Signature]											

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A. M. Castile & Co.

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Page 1 of 1

Ship From:		Sold To:		Ship To:		Deliver To:	
A. M. Castile & Co. Los Angeles 14001 Orange Avenue Paramount, CA 90723		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped	F.O.B.	Freight Terms	Carrier	BOL No	Delivery No		
02-JAN-2018	ORIGIN	Prepaid	BO-SHIP DIRECT	2814998	121500852		
Shipment Details							
Final Destination Branch -							
Order No	Line No	Item No	Description				
4984539	3	750023.MO	0.2500.PL.7075.T651-ALUMINUM.48.5000.144.5000 CUT 2SIDED TO 6 IN ( + .1250/- .0000 IN) X 144.5 IN ( + .1250/- .0000 IN) - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12				
Purchase Order No	Part Number	Ordered Qty	Invoice Qty				
38631		1.00 PCS	1.00 PCS				
Details							
ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@artaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS							
Mill/Source	Heat Number	Mech ID	PCS	Width (IN)	Length (IN)	Shipped Qty (LBS)	
KAISER ALUMINUM	682592A1		1			22.8550	
These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or as otherwise authorized by U.S. law and regulations.							
We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to Castle Metals & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.							
Reviewed by Authorized Castle Metals Representative:							
				Date	Name		
				2/06/18	Eric Delaney		



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A. M. Castile & Co.

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Page 1 of 1

Ship From:		Sold To:		Ship To:		Deliver To:	
A. M. Castile & Co. Los Angeles 14001 Orange Avenue Paramount, CA 90723		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped	F.O.B.	Freight Terms	Carrier	BOL No	Delivery No		
02-JAN-2018	ORIGIN	Prepaid	BO-SHIP DIRECT	2814998	121500852		
Shipment Details							
Final Destination Branch -							
Order No	Line No	Item No	Description	Ordered Qty	Invoice Qty		
4984539	4	750157.MO	0.7500.PL.7075.T651.ALUMINUM.USI.48.5000.144.5000 CUT 2SIDED TO 1.25 IN ( + .1250/- .0000 IN) X 144.5 IN ( + .1250/- .0000 IN) - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250-12	1.00 PCS	1.00 PCS		
Purchase Order No	Part Number						
38631							
Details							
ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavole@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS							
Mill/Source	Heat Number	Mech ID	PCS	Width (IN)	Length (IN)	Shipped Qty (LBS)	
KAISER ALUMINUM	234628B6		1			14.1384	
These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or as otherwise authorized by U.S. law and regulations.							
We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castile & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.							
Reviewed by Authorized Castle Metals Representative:				Date: 01/02/18 Name: [Signature]			



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Page 1 of 1

Pack Slip No: 2802178

<b>Ship From:</b> A. M. Castle & Co. Los Angeles 14001 Orange Avenue Paramount, CA 90723		<b>Sold To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		<b>Ship To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		<b>Deliver To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA					
<b>Date Shipped</b> 02-JAN-2018		<b>F.O.B.</b> ORIGIN		<b>Freight Terms</b> Prepaid		<b>Carrier</b> BO-SHIP DIRECT		<b>BOL No</b> 2814998		<b>Delivery No</b> 121500852	

Shipment Details

Order No	Line No	Item No	Description	Ordered Qty	Invoice Qty
4984539	5	750067.MO	0.3750.PL.7075.T651.ALUMINUM.48.5000.144.5000 CUT 2SIDED TO 6 IN ( + .1250/- .0000 IN) X 144.5 IN ( + .1250/- .0000 IN) - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12	2.00 PCS	2.00 PCS
<b>Purchase Order No</b> 38631		<b>Part Number</b>		<b>Ordered Qty</b> 2.00 PCS	


<b>Details</b>	
ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #S Email P/s and certs to: clavoite@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS	

8018-018

<b>Mill/Source</b> KAISER ALUMINUM	<b>Heat Number</b> 245158B1	<b>Mech ID</b> 2	<b>PCS</b> 2	<b>Width (IN)</b>	<b>Length (IN)</b>	<b>Shipped Qty (LBS)</b> 68.1271
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These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or its otherwise authorized by U.S. law and regulations.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any special conditions forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:  Date: 2/29/18 Name: Eric Delaney





Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# **PURCHASE ORDER** **PO038631**

**Supplier:** MEC002-VU  
Metaux Castle  
P.O. Box 4090 Stn A  
Toronto  
ON  
M5W OE9 Canada

**PO No:** PO038631

**PO Date:** 12/12/17

**Due Date:** 1/8/18

**Purchase Order**

**Revision:**

**Revision Date:**

**Ship-To Contact:** Lavoie, Chantal  
Phone: clavoie@dartaero.com

**E-MAILED**  
DEC 13 2017

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**Via:** Ground

**Pynt Terms:** Net 30

**Freight Terms:**

**Special Comments:**

## Items

Line Item	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	M7075T6S1.250X2.000	7075-T6 Sheet 1.250" X 2.000" : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	1/8/18	48 ft	0 ft	48 ft	\$20.12/ft	\$965.76
2	M7075T6S6.000X0.250	7075-T6S Sheet 6" Thick Plate X 0.25" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	1/8/18	12 ft	0 ft	12 ft	\$20.75/ft	\$249.00
3	M7075T6S0.750X1.250	M7075T6S0.750X1.250 : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	1/8/18	12 ft	0 ft	12 ft	\$16.45/ft	\$197.40
4	M7075T6S0.375X6.000	7075-T6S Sheet .375" Thick Plate X 6" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	1/8/18	24 ft	0 ft	24 ft	\$25.68/ft	\$616.32

Plex 12/13/17 11:11 AM dart.lavoie.chantal

Items									
Line Item	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
5	M7075T6S1.750X2.250	7075-T6 Sheet 1.750" X 2.250" : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	1/8/18	48 ft	0 ft	48 ft	\$28.62/ft	\$1,373.76
48 ft SP18-01-8									
6	M7075T6S4.000X3.000	7075-T6S Sheet 4.000" Thick X 3.000" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	1/8/18	24 ft	0 ft	24 ft	\$82.35/ft	\$1,976.40
24 ft SP18-01-8									
Line Item Note cut in section of 4 ft									
7	M7075T6S4.000X4.000	7075-T6 Sheet 4.000' X 4.000" cut to size: 32" LONG : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	1/8/18	26.667 ft	0 ft	27 ft	\$94.500236/ft	\$2,520.04
26.667 ft SP18-01-8									
Line Item Note 10 pcs cut at 32" length									
								Grand Total: \$7,898.68	

## Order Notes

## Procurement Quality Clauses

- A005 right of entry
- A012 chemical and physical test report
- A016 personnel qualification
- A017 raw material identification (as applicable)
- A026 certification of material conformance
- A041 quality management system
- A042 dart notification by supplier
- A043 retention of quality documents
- A048 counterfeit parts avoidance, detection, mitigation and disposition program
- A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

Plex 12/13/17 11:11 AM dart.lavoie.chantal



## Chantal Lavoie

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**From:** Desbiens, Marc <mdesbien@amcastle.com>  
**Sent:** Wednesday, December 13, 2017 11:03 AM  
**To:** Chantal Lavoie  
**Subject:** RE: quote

Hi Chantal,

Sorry

7075-t6 bar 4" x 3" x 24 ft cut in section 4 ft \$ 82.35 Ft

Thanks

Marc Desbiens  
Inside sales representative  
Castle Metals, Montreal, QC  
Direct line 514-795-8176  
1-800-806-6660 ext 52226  
Fax # 1-855-892-6370

*Customized Supply Chain Solutions for Your Metal Needs*

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**From:** Chantal Lavoie [mailto:clavoie@dartaero.com]  
**Sent:** Tuesday, December 12, 2017 2:06 PM  
**To:** Desbiens, Marc  
**Subject:** RE: quote

Hi Marc,  
For mat'l 7075-t6 plate 4 x 3 wow is it really 215.52 a ft.  
Thanks  
Chantal

**From:** Desbiens, Marc [mailto:mdesbien@amcastle.com]  
**Sent:** Monday, December 11, 2017 1:59 PM  
**To:** Chantal Lavoie <clavoie@dartaero.com>  
**Subject:** RE: quote

Hi Chantal,

price an delivery on mat'l.

7075-t6 bar 1.250" x 2" x 12 ft \$ 20.12 Ft  
70175-t6 bar 6" x 0.250" x 12 ft \$ 20.75 Ft  
7075-t6 bar 1.250" x 2" x 36 ft \$ 20.12 Ft  
7075-t6 bar 0.750" x 1.250" x 12 ft \$ 16.45 Ft

7075t6 bar 0.375" x 6" x 24 ft \$ 25.68 Ft  
7075-t6 bar 4.5" x 5" x 12 ft cut in section 4 ft Regret, 4" max  
7075-t6 bar 1.750" x 2.250" x 24 ft \$ 28.62 Ft  
7075-t6 bar 4" x 3" x 24 ft cut in section 4 ft \$ 215.25 Ft  
7075-t6 bar 4" x 4" x 10 pcs cut At 32" \$ 252.00 piece

These would all be cut from plate

All 3 weeks

Thanks

Marc Desbiens  
Inside sales representative  
Castle Metals, Montreal, QC  
Direct line 514-795-8176  
1-800-806-6660 ext 52226  
Fax # 1-855-892-6370  
*Customized Supply Chain Solutions for Your Metal Needs*

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## Chantal Lavoie

---

**From:** Desbiens, Marc <mdesbien@amcastle.com>  
**Sent:** Monday, December 11, 2017 1:59 PM  
**To:** Chantal Lavoie  
**Subject:** RE: quote

Hi Chantal,

price and delivery on mat'l.

7075-t6 bar 1.250" x 2" x 12 ft <sup>4944</sup> \$ 20.12 Ft  
70175-t6 bar 6" x 0.250" x 12 ft \$ 20.75 Ft  
~~7075-t6 bar 1.250" x 2" x 36 ft \$ 20.12 Ft~~  
7075-t6 bar 0.750" x 1.250" x 12 ft \$ 16.45 Ft  
7075t6 bar 0.375" x 6" x 24 ft \$ 25.68 Ft  
7075-t6 bar 4.5" x 5" x 12 ft cut in section 4 ft Regret, 4" max  
7075-t6 bar 1.750" x 2.250" x 48 ft \$ 28.62 Ft  
7075-t6 bar 4" x 3" x 24 ft cut in section 4 ft \$ 215.25 Ft  
7075-t6 bar 4" x 4" x 10 pcs cut At 32" \$ 252.00 piece = 26.6664 .

These would all be cut from plate

All 3 weeks

Thanks

Marc Desbiens  
Inside sales representative  
Castle Metals, Montreal, QC  
Direct line 514-795-8176  
1-800-806-6660 ext 52226  
Fax # 1-855-892-6370

**Customized Supply Chain Solutions for Your Metal Needs**

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<b>SHIP TO:</b> HADCO METAL TRADING CO. LLC SHIP TO STOCK 555 STATE ROAD BENSALEM, PA 19020
<b>SOLD TO:</b> HADCO METAL TRADING CO. LLC 555 STATE ROAD BENSALEM, PA 19020

**KAISER  
ALUMINUM**

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586



## CERTIFIED TEST REPORT

Serial Number  
4478709

CUSTOMER PO NUMBER: 098007-3	WORK PACKAGE:	CUSTOMER PART NUMBER:	SHIP RUN/LOAD: 104046/16	GOVT CONTRACT NUMBER:
KAISER ORDER NO: 1242581-3	SHIP DATE: 20-SEP-2017	ALLOY: 7075	CLAD: BARE	TEMPER: T651
PRODUCT DESCRIPTION: KaiserSelect Plate				
WEIGHT SHIPPED: 3766 LB	QUANTITY: 3 PCS EST	TRUCK B/L #: 2069094	GAUGE: 1.7500 IN (44.4500 MM)	DIAMETER/WIDTH: 48.500 IN (1231.9 MM)
LENGTH: 144.500 IN (3670.3 MM)				

MHU 2153028: LOT 70455083: 3 pieces:

### Certified Specifications

AMS 4045/Rev L

AMS-QQ-A-250/12 Rev A

ASTM B 209/Rev 14

Test Code: 1512

Lot: 704550B3

Cast 534

Drop 30

### Test Results

Ingot 1

Parent Lot: 245163B1

Melted In USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T651	LT / 2 (Min:Max)	80.8 : 81.6 (557 : 563)	71.2 : 72.3 (491 : 499)	12.5 : 13.4

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.07	0.13	1.4	0.03	2.6	0.20	5.8	0.02	0.01	0.01	TOT 0.03

### ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder



Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4478709

### CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order:

- \* has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.
- \* All test equipment and measuring devices are calibrated and certified in accordance with applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.
- \* was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.
- \* has been thermally processed in compliance with AMS 2772, where applicable.
- \* is mercury free, within the limits of detection of ASTM E1213 (<1 ppm).
- \* is in compliance with RoHS 2, European Union Directive 2011/65/EU.
- \* is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors those regulations for updates.
- \* is free of Conflict Minerals, as defined in Section 15.2 of the Dodd Frank Act.
- \* is free of weld repair.
- \* meets the reporting requirements of EN 0204, Type 3.1.

Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

JAMES HEMENWAY, TECHNICAL PROCESS MANAGER



**CERTIFIED TEST REPORT**  
Constellium Rolled Products  
Ravenswood, LLC

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A M CASTLE & CO.  
14001 ORANGE AVE  
PARAMOUNT CA  
90723  
US

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A M CASTLE  
1420 KENSINGTON ROAD, SUITE 220  
OAK BROOK IL  
60523  
US

A M CASTLE		110551463		4075		INCLUSION		Serial:20170707-0110551463		Pg 1of2	
CUSTOMER PURCHASE ORDER NO. & ITEM 424642						Constellium ORDER NO. 207814					
ALLOY 7075		CLAD		TEMPER T651		GAUGE 4.00000 in 101.60 mm		WIDTH 48.50000 in 1,232 mm		LENGTH 144.50000 in 3,670 mm	
ITEM ORDERED SPEC PLATE, SAWED MILL. FINISH											
CUSTOMER SPECIFICATION AMS 4045K											
PART NUMBER 752190				B/L NUMBER 83547				DATE SHIPPED 07/10/2017			
WT. SHIPPED 8655.000 LB				NO. OF PIECES 000003				GOVT. CONTRACT NO.			
										Steve Good - Laboratory Manager	

**CERTIFICATION**  
"Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination."  
Constellium Rolled Products Ravenswood, LLC  
859 Century Road  
P.O. BOX 68  
RAVENSWOOD, WV 26164 USA

**ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS:**

ASTM B594 REV 13 2013 100% SONIC W/ 0.125"DEADZONE Class A  
AMS QQ-A-250/12A  
AMS-STD-2154A 2012 TYPE1 CLASS A 100% SONIC MINUS DEADZONE  
ASTM B209-14  
BSS-7055B 2013 CLASS A 100% SONIC TESTED MINUS DEADZONE  
CSTI006 REV E 2011 CLASS A 100% SONIC MINUS DEADZONE  
DPS 4.713 REV AK 2012 CLASS A 100% SONIC MINUS DEADZONE  
GAMPS 9101 REV B 2006 CLASS A 100% SONIC MINUS DEADZONE  
PS 21211P 2010 CLASS A 100% SONIC MINUS DEADZONE

**Load Details**

Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot
1001559281	2,885.000	1,308.613	9600886	01		
1001559284	2,885.000	1,308.613	9600886	02		
1001559285	2,885.000	1,308.613	9600886	03		

**Lot: 9600886**

**Tensile - Room Temperature (US)**

		Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
Direction	Tests	Min	Max	Min	Max	Min	Max	
LT	02	70.6	70.7	56.2	56.4	12.0	12.0	

**Tensile - Room Temperature (SI)**

		Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report
Direction	Tests	Min	Max	Min	Max	Min	Max	
LT	02	487	487	387	389	12.0	12.0	








**CERTIFIED TEST REPORT**  
Constellium Rolled Products  
Ravenswood, LLC

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A M CASTLE & CO.  
14001 ORANGE AVE.  
PARAMOUNT CA  
90723  
US

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A M CASTLE  
1420 KENSINGTON ROAD, SUITE 220  
OAK BROOK IL  
60523  
US

A M CASTLE		110551463		4075		INCLUSION		Serial:20170707-0110551463		Pg 2of2	
CUSTOMER PURCHASE ORDER NO. & ITEM 424642						Constellium ORDER NO. 207814					
ALLOY 7075	CLAD	TEMPER T651	GAUGE 4.00000 in 101.60 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm		<b>CERTIFICATION</b> "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA    Steve Good - Laboratory Manager				
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4045K											
PART NUMBER 752190			B/L NUMBER 83547		DATE SHIPPED 07/10/2017						
WT. SHIPPED 8655.000 LB		NO. OF PIECES 000003		GOVT. CONTRACT NO.							
Chemistry (Actual)											
		SI	FE	CU	MN	MG	CR	ZN	TI	ZR	
Core		0.06	0.16	1.45	0.06	2.63	0.20	5.69	0.03	0.00	
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER											
All material contained in this lot was cast and manufactured in the USA											
QUALITY TEXTS: AMC CA-15403E R 6											
THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. CHEMISTRY BY OES: ARKSPARK CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399 WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8; B557 DUNS Number: 090570149; CAGE Code: 1YWL9 Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product. "END OF CERTIFICATION"											
P-860-155D REVISED: 10 2014											

<b>SHIP TO:</b> HADCO METAL TRADING CO. LLC SHIP TO STOCK 555 STATE ROAD BENSALEM, PA 19020
<b>SOLD TO:</b> HADCO METAL TRADING CO. LLC 555 STATE ROAD BENSALEM, PA 19020

**KAISER ALUMINUM**  
 Trentwood Works - Spokane, WA 99215  
 Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
 4486074



<b>CUSTOMER PO NUMBER:</b> 099766-15	<b>WORK PACKAGE:</b>	<b>CUSTOMER PART NUMBER:</b>	<b>SHIP RUN/LOAD:</b> 104101/30	<b>GOVT CONTRACT NUMBER:</b>
<b>KAISER ORDER NO:</b> 1246188-15	<b>SHIP DATE:</b> 15-NOV-2017	<b>ALLOY:</b> 7075	<b>CLAD:</b> BARE	<b>TEMPER:</b> T651
<b>PRODUCT DESCRIPTION:</b> KaiserSelect Plate				
<b>WEIGHT SHIPPED:</b> 7250 LB	<b>QUANTITY:</b> 8 PCS EST.	<b>TRUCK B/L #:</b> 2070158	<b>GAUGE:</b> 1.2500 IN (31.7500 MM)	<b>DIAMETER/WIDTH:</b> 48.500 IN (1231.9 MM)
			<b>LENGTH:</b> 144.500 IN (3670.3 MM)	

MHU 2171871: LOT 248607B4: 5 pieces;  
 MHU 2171873: LOT 248607B4: 3 pieces;

### Certified Specifications

AMS 4045/RevL  
 ASTM B 209/Rev14  
 BSS 7055/RevB  
 DPS 4.713/RevAK  
 PS 21211/RevP

AMS-QQ-A-250/12/RevA  
 ASTM B 594/Rev13  
 CMMP 025/RevV  
 GAMPS 9101/RevB/AmdSCN1

AMS-STD-2154/RevC  
 BAC 5439/RevJ  
 CSTI 006/RevE  
 GSS16100/RevG/Amd1

Test Code: 1512

Lot: 248607B4

Cast 568

Drop 01

### Test Results

Ingot 4

Melted In USA

(ASTM E8/B557)

(EN 2002-1)

<b>Tensile:</b>	<b>Temper</b>	<b>Dir / # Tests</b>	<b>Ultimate KSI (MPA)</b>	<b>Yield KSI (MPA)</b>	<b>Elongation %</b>
	T651	LT / 3 (Min:Max)	80.6 : 81.5 (556 : 562)	71.0 : 72.1 (490 : 497)	13.2 : 13.9

(ASTM E1251)

<b>Chemistry:</b>	<b>SI</b>	<b>FE</b>	<b>CU</b>	<b>MN</b>	<b>MG</b>	<b>CR</b>	<b>ZN</b>	<b>TI</b>	<b>V</b>	<b>ZR</b>	<b>OTHER</b>
Actual(wt%)	0.08	0.18	1.5	0.03	2.4	0.19	5.7	0.03	0.01	0.01	TOT 0.03

### ALLOY LIMITS

	<b>SI</b>	<b>FE</b>	<b>CU</b>	<b>MN</b>	<b>MG</b>	<b>CR</b>	<b>ZN</b>	<b>TI</b>	<b>V</b>	<b>ZR</b>	<b>OTHER</b>	<b>MAX</b>
<b>7075</b>												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.8	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder



Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4486074

### TEST NOTES

Metal represented by this test report was 100% Type I (immersion) ultrasonically tested from one side with 3mm dead zones top and bottom and meets the Class A and Class B requirements of all specifications referenced on this test report. No surface marking or sonic indications is performed.

### CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order:

- has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.
- All test equipment and measuring devices are calibrated and certified in accordance applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.
- was melted in the United States of America or a qualifying country per DFARS 225.872-1(a) was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.
- has been thermally processed in compliance with AMS 2772, where applicable
- is mercury free, within the limits of detection of ASTM E1215 (< 1ppm).
- is in compliance with RoHS 2 European Union Directive 2011/65/EU.
- is in compliance with European Chemicals Agency, ECHA, REACH regulations (EC No 1907/2006, and Kaiser regularly monitors these regulations for updates
- is free of Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act
- is free of weld repair.
- meets the reporting requirements of EN10204, Type 3.1.

Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

JAMES HEMENWAY, TECHNICAL PROCESS MANAGER

**SHIP TO:**

A M CASTLE & CO  
14001 ORANGE AVE  
P.O. BOX 1402  
PARAMOUNT, CA 90723

# KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

**SOLD TO:**

AM CASTLE & CO- SOLD TO  
1420 KENSINGTON RD  
SUITE 220  
OAK BROOK, IL 60523

**CERTIFIED TEST REPORT**

Serial Number  
4333140

CUSTOMER PO NUMBER: 273385		WORK PACKAGE:		CUSTOMER PART NUMBER: 750023		SHIP RUN/LOAD: 102916/29		GOV'T CONTRACT NUMBER:		
KAISER ORDER NO: 1170646		LINE ITEM: 1	SHIP DATE: 9-MAY-2014		ALLOY: 7075	CLAD: BARE	TEMPER: T651	PRODUCT DESCRIPTION: Sawed Plate		
WEIGHT SHIPPED: 2670 LB		QUANTITY: 15 PCS EST.		TRUCK B/L #: 2047789		GAUGE: 0.2500 IN ( 6.3500 MM)		DIAMETER/WIDTH: 48.500 IN (1231.9 MM)		LENGTH: 144.500 IN (3670.3 MM)

MHU 1782826: LOT 682592A1: 15 pieces;

**Certified Specifications**

AMS 4045/RevK  
CMMP 025/RevU

AMS-QQ-A-250/12/RevA

ASTM B 209/Rev10

Test Code: 1512

**Test Results**

Lot: 682592A1 Cast 619

Drop 19

Ingot 4

Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T651	LT / 2 (Min:Max)	87.7 : 87.7 (605 : 605)	77.9 : 78.4 (537 : 541)	11.5 : 11.7

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.08	0.16	1.4	0.02	2.6	0.20	5.8	0.02	0.01	0.02	TOT 0.05



Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4333140

### ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

### Aluminum Remainder

### ORDER COMMENTS

AMC CA-15409 R 3  
AMS 4045,AMS QQ-A-250/12,ASTM B209,CMMP  
025



### CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC (Kaiser), is ISO-9001:2008/AS9100C certified and hereby certifies that all material shipped under this order:

- has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements.
- was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.
- has been thermally processed in compliance with AMS 2772, where applicable.
- is mercury free, within the limits of detection of ASTM E1261 ( $\leq 1$  ppm).
- is in compliance with RoHS 2, European Union Directive 2011/65/EU.
- is in compliance with and regularly monitors any updates to the European Chemical Agency, ECHA, REACH regulations, (EC) n° 1907/2006.
- is free of Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act.

Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

JAMES HEMMENWAY, LABORATORIES SUPERVISOR

SHIP TO: A M CASTLE & CO 14001 ORANGE AVE P.O. BOX 1402 PARAMOUNT, CA 90723
SOLD TO: AM CASTLE & CO- SOLD TO 1420 KENSINGTON RD SUITE 220 OAK BROOK, IL 60523

# KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4478423

CUSTOMER PO NUMBER: 432058-1	WORK PACKAGE:	CUSTOMER PART NUMBER: 750157	SHIP RUN/LOAD: 104044/21	GOV'T CONTRACT NUMBER:
KAISER ORDER NO: 1241264-1	SHIP DATE: 18-SEP-2017	ALLOY: 7075	CLAD: BARE	TEMPER: T651
PRODUCT DESCRIPTION: Sawed Plate				
WEIGHT SHIPPED: 3292 LB	QUANTITY: 6 PCS EST.	TRUCK B/L #: 2069054	GAUGE: 0.7500 IN ( 19.0500 MM)	DIAMETER/WIDTH: 48.500 IN (1231.9 MM)
LENGTH: 144.500 IN (3670.3 MM)				

MHU 2151088: LOT 234628B6: 6 pieces;

### Certified Specifications

AMS 4045/RevL  
ASTM B 209/Rev14  
BSS 7055/RevB  
DPS 4.713/RevAK  
PS 21211/RevP

AMS-QQ-A-250/12/RevA  
ASTM B 594/Rev13  
CMMP 025/RevV  
GAMPS 9101/RevB/AmdSCN1

AMS-STD-2154/RevC  
BAC 5439/RevJ  
CSTI 006/RevE  
GSS16100/RevG/Amd1

Test Code: 1512

Lot: 234628B6

Cast 512

Drop 05

### Test Results

Ingot 4

Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T651	LT / 2 (Min:Max)	81.8 : 81.8 (564 : 564)	72.2 : 72.3 (498 : 499)	12.9 : 13.1

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.08	0.18	1.5	0.04	2.5	0.20	5.5	0.03	0.01	0.01	TOT 0.03

### ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

### ORDER COMMENTS

AMC CA-15403 R 8





# KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4478423

### TEST NOTES

Metal represented by this test report was 100% Type I  
(immersion) ultrasonically tested from one side with 3mm  
dead zones top and bottom and meets the Class A and Class B  
requirements of all specifications referenced on this test  
report. No surface marking of sonic indications is  
performed.

### CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order:

- \* has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.
- \* All test equipment and measuring devices are calibrated and certified in accordance applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.
- \* was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 262.226 for domestic content.
- \* has been thermally processed in compliance with AMS 2772, where applicable.
- \* is mercury free, within the limits of detection of ASTM E1215 (< 1ppm).
- \* is in compliance with RoHS 2, European Union Directive 2011/65/EU.
- \* is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.
- \* is free of Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act.
- \* is free of weld repair.
- \* meets the reporting requirements of EN10204, Type 3.1.

Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.



JAMES HEMENWAY, TECHNICAL PROCESS MANAGER

<b>SHIP TO:</b> A M CASTLE & CO 14001 ORANGE AVE P.O. BOX 1402 PARAMOUNT, CA 90723
<b>SOLD TO:</b> AM CASTLE & CO- SOLD TO 1420 KENSINGTON RD SUITE 220 OAK BROOK, IL 60523

# KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4481839

CUSTOMER PO NUMBER: 438454-1	WORK PACKAGE:	CUSTOMER PART NUMBER: 750067	SHIP RUN/LOAD: 104070/8	GOV'T CONTRACT NUMBER:
KAISER ORDER NO: 1244225-1	SHIP DATE: 14-OCT-2017	ALLOY: 7075	CLAD: BARE	TEMPER: T651
PRODUCT DESCRIPTION: Sawed Plate				
WEIGHT SHIPPED: 3198 LB	QUANTITY: 12 PCS EST.	TRUCK B/L #: 2069553	GAUGE: 0.3750 IN ( 9.5250 MM)	DIAMETER/WIDTH: 48.500 IN (1231.9 MM)
LENGTH: 144.500 IN (3670.3 MM)				

MHU 2157346: LOT 245158B1: 12 pieces;

### Certified Specifications

AMS 4045/RevL  
CMMP 025/RevV

AMS-QQ-A-250/12/RevA

ASTM B 209/Rev14

Test Code: 1512

Lot: 245158B1

Cast 534

Drop 25

### Test Results

Ingot 5

Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T651	LT / 3 (Min:Max)	85.5 : 85.8 (590 : 592)	75.8 : 76.0 (523 : 524)	13.3 : 13.5

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.10	0.17	1.5	0.04	2.5	0.19	5.8	0.03	0.01	0.02	TOT 0.03

### ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

### ORDER COMMENTS

AMC CA-15409 R 3



# KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4481839

### CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order:

- has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.
- All test equipment and measuring devices are calibrated and certified in accordance applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.
- was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.
- has been thermally processed in compliance with AMS 2772, where applicable.
- is mercury free, within the limits of detection of ASTM E1215 (< 1ppm).
- is in compliance with RoHS 2, European Union Directive 2011/65/EU.
- is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.
- is free of Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act.
- is free of weld repair.
- meets the reporting requirements of EN10204, Type 3.1.

Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.



JAMES HEMENWAY, TECHNICAL PROCESS MANAGER

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M7075+650-375x6.000

PO / BATCH NO.: 038631/5030140

DATE: JAN 09 2018

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 0.375

QUANTITY RECEIVED: 24"

THICKNESS RECEIVED: 0.375

QUANTITY INSPECTED: 24"

SHEET SIZE ORDERED: N/A

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>AMS-QQ-A-250</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>Heat # 245138B1</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N <input type="radio"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N <input type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

<b>QC 18 INSPECTION</b>		<b>ENGINEERING SIGNOFF (if required)</b>	
INSPECTED BY: <u>DAS 11</u> DATE: <u>9-89</u>	SIGNED OFF BY: _____ DATE: _____		
DATE: <u>JAN 09 2018</u>		DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

**SPECIFICATION CONTROL DRAWING**

**PURCHASE MATERIAL:** 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE

**SPECIFICATION:** QQ-A-250/12 OR AMS-QQ-A-250/12

OR AMS-4048  
OR ASTM B209

OR

**PURCHASE MATERIAL:** 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE

**SPECIFICATION:** QQ-A-250/13 OR AMS-QQ-A-250/13  
OR AMS-4048 / 4049  
OR ASTM B209

**PART NUMBER:** M7075T6S .TTT X W.WWW  
THK WIDTH

WHERE "TTT" = THICKNESS (IN INCHES)  
AND "W.WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)

EG. 0.063" THICK SHEET = M7075T6S.063  
EG. 3.5" WIDE BY 0.500" THICK PLATE = M7075T6S.500X3.500

**PREFERRED SIZE:** .TTT BY 4FT BY 10FT FOR SHEET

**RELEASED**

2017 JUN 19 4P  
ECN 17-574

APPROVED

B	ADD. REF. TO "PLATE", "T651" TEMPER, AMS 4048, OPTIONAL WIDTH DIM (CAR16-148)	CP	17.05.05
A	NEW ISSUE	RF	10.11.08
REV	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	CP		
CHECKED	ML		
MFG. APPR.	LL		
APPROVED	WM		
DE APPR.	DS		
DATE	17.05.05		
DART AEROSPACE LTD HAYKESBURY, ONTARIO, CANADA			
REV. B DRAWING NO. M7075T6S SHEET 1 OF 1			
TITLE 7075-T6 SHEET/PLATE SPEC SCALE NTS			
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## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M7075+650.750X1.250

PO / BATCH NO.: 038631/5030139

DATE: JAN 09 2018

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 12'  
 QUANTITY INSPECTED: 12'  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.250  
 THICKNESS RECEIVED: 1.250  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	Am5-QQ-A250
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	Heat # 23462886
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS 11</u>		SIGNED OFF BY: _____	
DATE: <u>9-89 JAN 09 2018</u>		DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



**SPECIFICATION CONTROL DRAWING**

**PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE**

**SPECIFICATION:** QQ-A-250/13 OR AMS-QQ-A-250/12

OR AMS 4045  
OR ASTM B209

OR

**PURCHASE MATERIAL: 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE**

**SPECIFICATION:** QQ-A-250/13 OR AMS-QQ-A-250/13

OR AMS 4048 / 4049  
OR ASTM B209

**PART NUMBER:**

M7075T6S | TTT | X | W, WWW |  
| THK | | WIDTH |

**WHERE "TTT" = THICKNESS (IN INCHES)  
AND "W, WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)**

EG. 0.063" THICK SHEET = M7075T6S.063  
EG. 3.5" WIDE BY 0.500" THICK PLATE = M7075T6S.500X3.500

**PREFERRED SIZE:** .TTT BY 4FT BY 10FT FOR SHEET

**RELEASED**

2017 JUN 19  
ECN 17-574

**APPROVED**

B	ADD REF TO PLATE: 7075-T6 TEMPER, AMS 4048, OPTIONAL WIDTH DIM (PART 148)	CP	17.05.05
A	NEW ISSUE	RF	10.11.08
DESIGN	RF	DESCRIPTION	
DRAWN	CP	DART AEROSPACE LTD	
CHECKED	ML	HAWKESBURY, ONTARIO, CANADA	
MFG. APPR.	LL	DRAWING NO.	
APPROVED	WM	M7075T6S	
DE APPR.	DS	TITLE	
DATE	17.05.05	7075-T6 SHEET/PLATE SPEC	
		SCALE	
		NTS	

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# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M7025H656.000X0.250

PO / BATCH NO.: 038631/5030138

DATE: JAN 09 2018

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 12'  
 QUANTITY INSPECTED: 12'  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.250  
 THICKNESS RECEIVED: 0.250  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	
CORROSION	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<u>AMS-QQ-A-250</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	
PHOTO REQUIRED	<input checked="" type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	<u>Heat# 68259241</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>11</u> DATE: <u>JAN 09 2018</u>	SIGNED OFF BY: _____ DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

△ PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE

SPECIFICATION: QQ-A-250/12 OR AMS-QQ-A-250/12  
OR AMS 4045  
OR ASTM B209

OR

△ PURCHASE MATERIAL: 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE

△ SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/13  
OR AMS 4048 / 4049  
OR ASTM B209

△ PART NUMBER:

M7075T6S | TTT | X | W | WWW |  
| THK | | WIDTH |

△ WHERE: "TTT" = THICKNESS (IN INCHES)  
AND "W | WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)

EG. 0.063" THICK SHEET = M7075T6S.063  
EG. 3.5" WIDE BY 0.500" THICK PLATE = M7075T6S.500X3.500

△ PREFERRED SIZE:

.TTT BY 4 FT BY 10 FT FOR SHEET

RELEASED

2017 JUN 19  
ECN 17-574

APPROVED

REV.	A	ADD REF TO PLATE* T651 TEMPER, AMS 4048, OPTIONAL WIDTH DIM (CARB-148)		CP	17.05.05
		NEW ISSUE		RF	10.11.08
DESIGN	RF	DESCRIPTION		BY	DATE
DRAWN	CP	DRAWING NO.		REV. B	
CHECKED	ML	M7075T6S		SHEET 1 OF 1	
MFG. APPR.	LL	TITLE		SCALE	
APPROVED	WM	7075-T6 SHEET/PLATE SPEC		NTS	
DE APPR.	DS	DATE		17.05.05	

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# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M7075 H651.250x2.000

PO / BATCH NO.: 038631/5030137

DATE: JAN 09 2018

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 48"  
 QUANTITY INSPECTED: 48"  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.250  
 THICKNESS RECEIVED: 1.250  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y N	
CORROSION	Y <input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y N	AMS-QQ-A-250
CORRECT THICKNESS	<input checked="" type="radio"/> Y N	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y N	Heat # 248607B4
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

*testers located in the Quality Office*

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS 11</u>	SIGNED OFF BY: _____		
DATE: <u>9-89 JAN 09 2018</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

**A** PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE

SPECIFICATION: QQ-A-250/12 OR AMS-QQ-A-250/12

OR  
OR AMS 4048  
OR ASTM B209

**B** PURCHASE MATERIAL: 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE

SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/13  
OR AMS 4048 / 4049  
OR ASTM B209

**B** PART NUMBER: M7075T6S | TTT | X | W | WWW |  
| THK | | WIDTH |

**B** WHERE "TTT" = THICKNESS (IN INCHES)  
AND "W.WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)

EG. 0.063" THICK SHEET = M7075T6S.063  
EG. 3.5" WIDE BY 0.500" THICK PLATE = M7075T6S.500X3.500

**B** PREFERRED SIZE: .TTT BY 4FT BY 10FT FOR SHEET

RELEASED

2017 JUN 19 4  
ECN 17-574

APPROVED

B	ADD: REF TO "PLATE", "T651" TEMPER, AMS 4048, OPTIONAL WIDTH DIM (CAR16-149)	CP	17.05.05
A	NEW ISSUE	RF	10.11.08
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	CP		
CHECKED	ML		
MFG. APPR.	LL		
APPROVED	WM		
DE APPR.	DS		
DATE	17.05.05		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M7075T6S			
REV. B SHEET 1 OF 1			
TITLE 7075-T6 SHEET/PLATE SPEC NTS			
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# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M7075+651.750x2250  
 DATE: JAN 09 2018

PO / BATCH NO.: 038631/5030141

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 48"  
 QUANTITY INSPECTED: 48"  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.750  
 THICKNESS RECEIVED: 1.750  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>Am5 QQ-A-250</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>Heat # 70455063</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N <input type="radio"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N <input type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

<b>QC 18 INSPECTION</b>		<b>ENGINEERING SIGNOFF (if required)</b>	
INSPECTED BY: <u>DAS 11</u> DATE: <u>9-8-89 JAN 09 2018</u>	SIGNED OFF BY: _____ DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



# SPECIFICATION CONTROL DRAWING

**A** PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE

SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/12

OR ~~AMS-4048~~  
OR ASTM B209

OR

**B** PURCHASE MATERIAL: 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE

**B** SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/13  
OR AMS 4048 / 4049  
OR ASTM B209

**B** PART NUMBER: M7075T6S | TTT | X | W.WWW |  
| THK | | WIDTH |

**B** WHERE "TTT" = THICKNESS (IN INCHES)  
AND "W.WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)

EG. 0.063" THICK SHEET = M7075T6S.063  
EG. 3.5" WIDE BY 0.500" THICK PLATE = M7075T6S.500X3.500

**B** PREFERRED SIZE: .TTT BY 4FT BY 10FT FOR SHEET

RELEASED

2017 JUN 19 09  
ECN 17-574

APPROVED

B	ADD: REF TO "PLATE", "T651" TEMPER, AMS 4048, OPTIONAL WIDTH DIM (CARTG-145)	CP	17.05.05
A	NEW ISSUE	RF	10.11.08
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	CP		
CHECKED	ML		
MFG. APPR.	LL		
APPROVED	WM		
DE APPR.	DS		
DATE	17.05.05		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M7075T6S			
SHEET 1 OF 1			
TITLE 7075-T6 SHEET/PLATE SPEC NTS			
SCALE			
DATE 17.05.05			
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